

## CHAPTER 50 - AIRCRAFT

NICC is the sole source for large transport aircraft holding Federal Aviation Regulations (FAR) Part 121 Certificates and for Type 1 and 2 Call-When-Needed (CWN) helicopters.

Cooperator aircraft (State contracted, State owned, State managed National Guard aircraft, county, city or other) may be used on federal fires under the following conditions:

- The pilot and the aircraft have been approved in writing for the mission by either the FS or the Office of Aviation Services (OAS).
- There exists a written MOU (Memorandum of Understanding), Interagency Agreement or other document that authorizes aircraft use and payment for use.
- The cooperator aircraft will be operated within any limits on its use established in the written approval.
- The cooperator aircraft will be used only in situations where federal aircraft are not reasonably available.
- The cooperator aircraft will be released when federal aircraft become reasonably available.
- Use of cooperator-owned aircraft prior to exhausting local contracted resources must involve a “significant and imminent threat to life or property”.

### AIRCRAFT MOBILIZATION (NMG, Ch.50)

When a Geographic Area has depleted local and available aircraft resources, request(s) will be placed with NICC. Aircraft assigned will become the receiving Area’s resource until released. The following terminology will be used when requesting aircraft through NICC:

- Knots (kts.) will be the standard term used to reference airspeed.
- VORs (Very High Frequency Omnidirectional Range) will be used to reference direction.
- Latitude and longitude must be provided in Degrees Decimal Minutes (DDM), utilizing GPS Datum WGS84 degrees and minutes.
- Aircraft registration numbers will be used when referencing helicopters, lead planes, and air attack aircraft. Airtankers and SEATs will be referenced by the airtanker number; e.g., T-00.

The following selection factors will be used when ordering aircraft:

- Airtankers: Loaded or empty (two [2] hour maximum flight when loaded, except for the VLATs).
- Timeliness.
- Cost effectiveness.
- Performance specifications for density/high altitude operations.
- Appropriately carded.
- Special applications such as special-use flights, tundra pads, float, etc.

## **PREPOSITIONING OF NATIONAL AVIATION ASSETS**

When Type 1 or 2 airtankers, water scoopers, Lead Planes, ASM's, Type 1 or 2 helicopters (national aviation assets) are brought in to the Geographic Area a determination will be made on a preposition location. Prepositioning to a local air tanker or helibase will be coordinated with the local center manager/ dispatcher. The local center will create a ROSS incident and place an order to EACC in order to transfer control of the resource to the local center for dispatch and tracking purposes. All aircraft prepositioned at the request of EACC are available for local IA following national commitment guidelines. Any assignment of these resources to large/project fires will have EACC concurrence prior to assignment.

### **Dispatch Requirements**

Dispatch centers hosting Eastern Area prepositioned aircraft will have a qualified Initial Attack Dispatcher (IADP) on duty during periods of aircraft availability. All national aviation resources including Type 1 and 2 Helicopters, Type 1 and 2 Airtankers, Water Scoopers, Lead Planes, and Air Attack aircraft assigned to an air tanker base or helibase will be tactically dispatched by the local dispatch center. Upon dispatch the following requirements need to be met:

- Prompt notification to EACC of an aviation assets commitment to an incident.
- Prompt commit and uncommitted messages to all Eastern Area units and neighboring Geographic areas by the hosting dispatch center.
- Prompt submission of a kneeboard to EACC via email or fax.

The hosting dispatch center has the authority to reroute, divert, or recall the aviation assets assigned to them. EACC will be promptly notified of any diversion/cancellation. When multiple dispatch centers have pending requests for the same aviation asset the EACC center manager or acting will prioritize the incidents based upon the information contained on the kneeboards and/or subsequent updates to it and make a determination on commitment.

### **Release Locations**

When the airtankers or water scooper aircraft have been released, they should return to the base they were operating out of or the closest airtanker base to the incident unless prior arrangements or coordination has been done.

## **ORDERING PROCEDURES**

- All aircraft orders are coordinated through local dispatch centers.
- ROSS is the system of record to order tactical aircraft. However, for initial attack requests, kneeboards will be acceptable, if necessary, during time critical mobilization. Kneeboards will be followed up with a ROSS order as soon as possible.
- Dispatch centers requesting prepositioned tactical aircraft must complete a kneeboard and submit it to EACC via fax or email.

**EACC Aviation Fax:** 414-944-3593 **EACC Email:** [wieacc@firenet.gov](mailto:wieacc@firenet.gov)

- Requesters are encouraged to follow up with a phone call to the EACC Aircraft Coordinator.

- Hosting dispatch centers will relay ATD and ETA to the EACC Aircraft Coordinator when dispatching aircraft outside their jurisdictional area. The Aircraft Coordinator will relay that information to the requesting unit.
- Non-hosting requesting units will contact EACC when resources are released. EACC will then relay the information to the hosting dispatch center.
- The following lists the minimum information needed to process an aircraft request:
  - Lat/Long must be provided in degrees and minutes (enter via the Initial Incident screen)
  - Reload base (all bases automatically loaded onto screen after Lat/Long is entered: edit desired bases from Admin screen)
  - Hazards (enter via the Incident screen)
  - Frequency (enter via the Incident screen)
  - Mission Priority (for airtanker requests, this should be relayed via phone and will be entered in "Special Needs" via the New Request screen)
  - Air and Ground Contact (would like this info, if known, but should not hold up the order. Enter via the Incident screen)
  - Descriptive Location (would like this info, if known, but should not hold up the order. Enter via the Initial Incident screen)
  - Elevation (for Helicopters or SEATs, if known, but should not hold up the order. Enter in "Special Needs" via the New Request screen)
- Refer to Chap. 16 of the Interagency Standards For Fire And Fire Aviation Operations (Redbook) for pilot and crew rest requirements.

#### **GACC-TO-GACC INITIAL ATTACK ORDERING OF AIRTANKERS AND LEAD PLANES**

The Eastern Area Coordination Center (EACC) may order initial attack airtankers and lead planes directly from the Southern Area Coordination Center (SACC) only when proximity of the fire allows the airtanker to respond loaded directly to the incident. All other requests will follow standard ordering procedures. The change of status of any airtanker or lead plane and flight following information will be communicated by the sending GACC using standard procedures established in the NMG, Ch. 50.

#### **AIRCRAFT OPERATIONS**

Aircraft may be used for a wide range of activities, including the movement of personnel and equipment, for suppression and preparedness, reconnaissance, aerial ignition, delivery of retardant, etc.

There are four basic sources for aircraft:

- Agency aircraft
- Exclusive Use contracted aircraft
- Call-When-Needed (CWN) or aircraft rental agreement (ARA) through the Office of Aviation Services (OAS)
- Commercial Carriers

Aircraft on federal incidents or carrying federal employees must be carded by interagency partners, OAS or the Forest Service. Aviation managers assigned to rotor or fixed wing aircraft are responsible for

assuring that both the aircraft and pilot are currently carded for the desired mission. Commercial airlines are exempt from the aircraft and pilot carding requirement.

### **FLIGHT CREW/AIR CREW ORIENTATION**

The local unit is responsible for providing an aviation briefing to:

- Incoming aviation resources
- Aviation Safety Assistance Teams (ASAT)
- Fire and Aviation Safety Team (FAST)

### **INITIAL ATTACK LOAD (NMG, Ch. 50)**

### **AIRCRAFT DEMOBILIZATION (NMG, Ch.50)**

### **FLIGHT MANAGEMENT PROCEDURES (NMG, Ch. 50)**

#### **National Flight Following Frequency (168.6500 MHz)**

The National Flight Following Frequency is used to monitor interagency and contract aircraft. All aircraft on point-to-point or mission flights should establish/terminate flight following, and confirm Automated Flight Following (AFF) on the National Flight Following frequency. All dispatch centers/offices will monitor the National Flight Following frequency at all times. A CTCSS tone of 110.9 must be placed on the transmitter and receiver of the National Flight Following frequency. The National Flight Following frequency is to be used for flight following, dispatch, or redirection of aircraft. No other use is authorized.

### **Types of Flights**

#### **Point-to-Point**

Point-to-point flights originate at one developed airport or permanent helibase, with a direct flight to another developed airport or permanent helibase. These types of flights are often referred to as "administrative" flights. These flights require point-to-point approved pilots and aircraft. A point-to-point flight is conducted higher than 500 feet above ground level (AGL) except for takeoff and landing.

#### **Mission Flights**

Mission flights are those flights that do not meet the definition of a point-to-point flight. These types of flights are often referred to as "tactical" flights. A mission flight requires work to be performed in the air (such as retardant or water delivery, reconnaissance, smokejumper delivery, sketch mapping), or through a combination of ground and aerial work (such as delivery of personnel and/or cargo from a helibase to an unimproved landing site, rappelling, cargo letdown, or wild horse herding). The pilot and aircraft must be agency approved (carded) for the mission being performed.

### **FAA FLIGHT PLANS AND FLIGHT FOLLOWING (NMG, Ch. 50)**

**AGENCY FLIGHT PLANS AND FLIGHT FOLLOWING (NMG, Ch. 50)**

***Agency flight plans are the responsibility of the originating dispatch office and are documented on a Flight Request/Flight Schedule or an Aircraft Resource order for mission flights.*** For mission flights, there are two types of Agency flight following: automated Flight Following (AFF), and Radio Check-in. AFF is the preferred method of agency flight following. If the aircraft and flight following office have AFF capability, it shall be utilized. Periodic radio transmissions are acceptable when utilizing AFF. (See AFF procedures below for more information). Radio Check-in/Check-out flight following requires verbal communication via radio every 15 minutes. The dispatcher will log the aircraft call sign, latitude, longitude and heading. Agency flight following is used for all mission flights. All aircraft operating on Agency flight plans shall monitor Air Guard. Helicopters conducting Mission Flights shall check in prior to and immediately after each takeoff/landing per IHOG, Chap. 4. For point-to-point flights, AFF flight following may be used as well. The pilot or flight manager will, as a minimum, contact dispatch prior to the flight with an estimated time of departure, estimated time enroute, souls and fuel on board and will close out with dispatch once the aircraft is on the ground. Flight following is the responsibility of the originating dispatch office and will remain so until transferred through a documented, positive handoff. The flight following dispatch office shall be continually staffed while an aircraft is airborne. Confirmation of an aircraft arrival at a specified destination is required to ensure that a flight has been completed safely. It is the pilot's responsibility to close out a flight plan. If an aircraft is overdue, it is the receiving dispatcher's responsibility to initiate aircraft search and rescue actions. Flight following problems are documented through the SAFECOM system.

**Active FAA IFR Flight Plan:** IFR flight plans shall be filed, activated upon departure, and closed upon arrival. An FAA Instrument Flight Rules (IFR) flight plan is required when flying into known or forecasted Instrument Meteorological Conditions (IMC). An IFR flight plan may be filed at pilot discretion in other cases.

**Active FAA VFR Flight Plan with Check In:** VFR flight plans shall be filed, activated upon departure, and closed upon arrival at destination. If an FAA Visual Flight Rules (VFR) flight plan is used, then a radio check-in every 60 minutes or less to an FAA facility is required.

**Telephone Departure and Arrival Times:** Confirmation is completed when an aircraft is contacted via radio or the receiving dispatch center is called via telephone upon arrival at the airport. Aircraft ordered as an "A" (aircraft) request on a resource order and which are not located on the local unit will be tracked by telephone/radio arrival confirmation.

**Operational Control Hand Off:** The receiving unit will notify the sending unit (via established channels) immediately when they have established radio contact with the incoming aircraft or otherwise obtained operational control of the aircraft.

**Overdue Aircraft:** Aircraft will be considered overdue when 30 minutes have elapsed from the ETA provided on the resource order and contact has not been established.

**AUTOMATED FLIGHT FOLLOWING (AFF) REQUIREMENTS AND PROCEDURES (NMG, Ch. 50)****FLIGHT MANAGEMENT PROCEDURES****Aircraft Flight Request/Schedule Form**

Used for documenting aircraft, pilot, passenger, itinerary, and type of flight plan. Required information on this form includes (but is not limited to):

- Incident Name/Number and Request Number
- FAA Registration, "N" number and Call Sign
- Aircraft Make/Model/Color
- Pilot and Vendor Name and Contact Information
- Mission Description
- Passenger/Cargo Information
- Flight Itineraries
- Flight Plan Type/Method of Flight Following

**Aircraft Flight Request/Schedule Form Requirements**

***The Aircraft Flight Request/Schedule Form is required to be completed (regardless of the type of flight plan filed) for those flights that are:***

- Point-to-Point (excludes preposition flights as directed by EACC)
- Mission flights with fuel stops or passenger pickup (not direct to an incident)
- Flights leaving the geographic area
- Flights crossing dispatch boundaries

In accordance with the guidelines above, the sending dispatch office is responsible for initiating a flight schedule form. This needs to occur before the aircraft begins flight. Dispatch offices should communicate with pilots and/or flight managers to coordinate the completion of a flight schedule form as accurately as possible. The type of flight plan must be documented as this information is critical for initiating search and rescue actions. Once the flight schedule form is created by the sending office, it must be emailed to [wieacc@firenet.gov](mailto:wieacc@firenet.gov) or faxed to the Eastern Area Coordination Center with a follow up phone call. If EACC is the hiring/sending office, a form will be created and faxed to the receiving dispatch office. EACC will fax the form to all the affected dispatch offices when Agency Flight Plans are filed. The form will be emailed or faxed to the National Coordination Center (NICC) by EACC for those flights leaving the geographic area.

**Responsibilities of the Sending Unit**

- Obtain actual time of departure (ATD) and estimated time of arrival (ETA) from the initial departure airport from pilot/vendor.
- Relay the ATD, ETA, and type of flight plan/flight following being utilized (FAA or Agency, AFF or Radio check-in) to EACC.
- Notify EACC of known delays/advances of a flight plan exceeding 30 minutes.

- Assist with search procedures for overdue aircraft. Utilize the Interagency Aviation Mishap Response Guide and Checklist.
- On any flight requiring stops enroute to a destination within the Eastern Area, instruct the pilot-in-command or flight manager to contact the EACC at 414-944-3811. Aircraft support vehicles should contact EACC at fuel stops. On any flight proceeding beyond the Eastern Area, instruct the pilot-in-command or flight manager to contact the NICC at 800-994-6312. Aircraft support vehicles should contact the NICC at each fuel stop.

### **Responsibilities of EACC**

- Relay the flight itinerary and type of flight plan/flight following being utilized to the requesting unit or NICC via phone/fax.
- Notify the requesting unit or the NICC in delays/advances of a flight plan exceeding 30 minutes.
- Assist with search procedures for overdue aircraft. Utilize the Interagency Aviation Mishap Response Guide and Checklist.

### **Responsibilities of the Receiving Unit**

- Confirm arrival of all tactical aircraft by telephone to EACC.
- Notify EACC of any delays of a flight plan exceeding 30 minutes; notify EACC of any aircraft overdue by more than 30 minutes.
- Initiate/assist with search procedures for overdue aircraft. Utilize the Interagency Aviation Mishap Response Guide and Checklist.

### **AIRCRAFT SELECTION FACTORS**

When selecting aircraft, several factors will be taken into consideration to determine the best aircraft for the mission. Factors may include but are not limited to:

- Day/Night: A multi-engine or turbine powered single-engine aircraft is required whenever a passenger flight will be flown within the period beginning 30 minutes after legal sunset until 30 minutes before legal sunrise.
- Instrument Flight Rules (IFR)/Visual Flight Rules (VFR): A multi-engine or turbine powered single-engine IFR approved aircraft is required whenever the flight will be in or is expected to be in IFR conditions. One pilot and a functioning autopilot or two pilots are required for IFR flights.
- Passenger & Baggage Weight: Be sure the aircraft has the weight capacity for the passengers, luggage or other material being transported. It is important to remember that weight is the limiting factor, not the number of passenger seats.
- Aircraft Speed: Check the schedules of the passengers to insure they can arrive on time in the aircraft selected. Generally aircraft speed isn't too important in short trips but becomes more important in long trips.
- Airports: Are the airports used in the flight suitable for the aircraft? Are the runways of adequate length? Is there fuel available for the aircraft? Will the elevation and air temperature of the airport affect the performance of the aircraft (density altitude)?

- **Cost:** A cost analysis must be completed for administrative flights. Normally this involves a comparison between commercial flights and agency owned aircraft but could involve a comparison between the various costs of charter aircraft.

### **AIRTANKERS (NMG, Ch. 50)**

Airtankers are National Resources and their primary mission is initial attack operations. The NICC will prioritize and allocate federal airtankers by positioning them in areas of current or predicted high wildfire danger or activity. Geographic Areas managing these aircraft will make them available for wildland fire assignments when ordered by NICC. This will be accomplished by ensuring that all support functions (i.e., airtanker Bases and Local Dispatch Centers) that are required for the mobilization of national assets (i.e. Type 1 and 2 Airtankers, Lead Planes, ASMs, and Type 1 and 2 Helicopters) are staffed and maintained to support mobilizations. When a Geographic Area has depleted available VLAT or Large Airtanker (Type 1 or 2) resources, request(s) will be placed with NICC. Large Airtanker initial attack agreements between neighboring unit level dispatch centers are valid only where proximity allows the airtanker to respond loaded direct to the incident.

There are five (5) types of airtankers:

<u>Type</u>	<u>Capacity (Minimum)</u>
VLAT	8,000 gallons or more
1	3,000 to 7,999 gallons
2	1,800 to 2,999 gallons
3	800 to 1,799 gallons
4	Up to 799 gallons

### **Airtanker Management**

To ensure consistent utilization, rotation and management of the national airtanker fleet, please refer to Interagency Standards for Fire and Aviation Operations Chapter 16, Aviation Operations and Resources. ([https://www.nifc.gov/policies/pol\\_ref\\_redbook.html](https://www.nifc.gov/policies/pol_ref_redbook.html))

### **PORTABLE/MOBILE RETARDANT MIXING BASES**

Agency owned portable retardant plant locations:

- Eastern Area: Minnesota State (2)
- Southern Area: Southern Interagency Fire Cache (2)

Portable or mobile retardant bases are available through Basic Ordering Agreements (BOA) and are ordered directly from the companies currently under Agreement. For current vendors, reference the Long Term Fire Retardant Requirement contract (<https://www.fs.fed.us/fire/contracting/retardant/retardant.htm>).

Order the appropriate retardant base and type of retardant depending on need, i.e. airtanker, SEAT, or helicopter. If the need is for helicopter operations, determine if a bucket or fixed tank will be used and



order the appropriate qualified/approved chemical. Check with aircraft personnel for the type of product generally used in your area. Due to corrosion problems, only certain products are approved. Check for approved wildland retardants on the qualified products source list. Products are limited for fixed tank helicopters.

Resource requests for portable retardant plants are ordered via ROSS as Equipment, All Retardant Plant, portable. Portable retardant plants are not typically entered in ROSS as resource items. When ordering directly from the National vendors, use Fill with Agreement utilizing the current National Contract.

### **AIRTANKER DISPATCH LIMITATIONS STARTUP/CUTOFF TIMES**

The using agency will make the decision whether or not these startup/cutoff times apply to SEAT operations (regardless of which agency furnishes the aircraft). To reduce the hazards to large airtanker operations posed by shadows in the early morning and late evening hours, limitations have been placed on times when airtankers drop on fires. Note that the limitations apply to the time the aircraft arrives over the fire and conducts its dropping activity, not the time the aircraft is dispatched from its base.

The air tactical group supervisor or ASM/Lead Plane will determine that visibility and other safety factors are suitable for dropping retardant and notify the appropriate dispatcher of this determination. Dispatchers and airtanker base managers, in consultation with airtanker coordinators or air tactical group supervisors, are mutually responsible for ensuring these limitations are not exceeded.

The following will apply:

- Aerial Supervision Optional:
  - Airtankers may be dispatched to arrive over the fire under normal agency aerial supervision policy, provided that the aircraft's arrival is between 30 minutes after official sunrise and 30 minutes before official sunset.
- Air Tactical Group Supervisor or ASM/Lead Plane:
  - A qualified air tactical group supervisor or ASM/Lead Plane is required on scene if the airtanker arrival over the fire and its dropping activity will occur during:
    - The period from 30 minutes prior to official sunrise to 30 minutes after official sunrise
    - The period from 30 minutes prior to official sunset to 30 minutes after official sunset
- Determinations of Time for Airtanker Dispatch:
  - For airtanker dispatch, use the official sunrise, start-up, cut-off, and sunset times of the airtanker base nearest the fire and comply with the start-up/cut-off times.

### **SUNRISE/SUNSET TABLES**

Airtanker bases and dispatch centers shall have tables showing the official sunrise, cut-off, and sunset times at their location. <https://aa.usno.navy.mil/data/index.php>

**AIRTANKER USE IN OPTIONAL AND POST SEASON PERIODS** (NMG, Ch. 50)

**MODULAR AIRBORNE FIREFIGHTING SYSTEMS (MAFFS)** (NMG, Ch. 50)

## WATER SCOOPERS

Water scooper's primary mission is initial attack operations. The NICC will prioritize and allocate federal water scoopers by positioning them in areas where they can be tactically effective and where current or predicted high wildfire danger or activity is occurring. Geographic areas managing these aircraft will make them available for wildland fire assignments when ordered by NICC.

### SINGLE ENGINE AIRTANKERS (SEATS) (NMG, Ch. 50)

The SEAT module will include a support vehicle with batch mixing capability for wet and dry retardant. They are available for interagency use and will be requested through established ordering channels. If the ordering office cannot provide a SEAT manager, one should be requested on an overhead order. For additional information, refer to the Interagency Single Engine Airtanker Operations Guide (ISOG, NFES 1844): <https://www.blm.gov/nifc/st/en/prog/fire/Aviation/Airops/seat.html>

There are a number of SEAT contracts in the Eastern Area, mainly in Pennsylvania, New Jersey, Wisconsin, and Minnesota.

- USDA-FS: Forest Service may use a SEAT contracted by cooperators (for example, DOI or State agency) provided that they meet the requirements in FSM 5713.45.
- DOI: Pilot shall be carded as either a Level I or Level II SEAT.

### LEAD PLANES AND AERIAL SUPERVISION MODULES (NMG, Ch. 50)

For a complete list of all Lead Planes/Aerial Supervision Aircraft, refer to the following website: [https://www.nifc.gov/nicc/logistics/aviation/Lead\\_Planes.pdf](https://www.nifc.gov/nicc/logistics/aviation/Lead_Planes.pdf).

### TACTICAL AND RECONNAISSANCE AIRCRAFT (NMG, Ch. 50)

Air Tactical and reconnaissance aircraft are on Call-When-Needed (CWN) and Exclusive Use Contracts solicited and inspected by the OAS and other federal agencies. They are available for interagency use and will be requested through established ordering channels. The ordering office may request the aircraft with specific avionics equipment as shown below.

Required Equipment	Type 1	Type 2	Type 3	Type 4
Aeronautical VHF-AM radio transceivers	2 each	2 each	2 each	2 each
Aeronautical VHF-FM radio transceivers	2 each	1 each	1 each	N/A
Transponder & altitude encoder	Yes	Yes	Yes	Yes
Panel Mounted or Aviation Handheld GPS	1 each	1 each	1 each	1 each
TAS (DOI)	Yes	N/A	N/A	N/A

<b>Required Equipment</b>	<b>Type 1</b>	<b>Type 2</b>	<b>Type 3</b>	<b>Type 4</b>
Separate audio control systems for pilot and ATGS	Yes	Yes	N/A	N/A
An audio control system	N/A	N/A	Yes	Yes
Audio/mic jacks with PTT capability in the rear seat connected to the co-pilot/ATGSs audio control system	Yes	Yes	N/A	N/A
An intercommunication System	Yes	Yes	Yes	Yes
AUX-FM provisions	Note 1	Note 1	N/A	N/A
AFF	Yes	Yes	Yes	Yes
2 – aeronautical VHF-FM antennas	N/A	N/A	N/A	Yes
An accessory power source	N/A	N/A	N/A	Yes
A portable Air Attack kit (Note 2)	N/A	N/A	N/A	Yes

Note 1: Type 1 and 2 aircraft must have either AUX-FM provisions or an additional aeronautical VHF-FM radio transceiver.

Note 2: Air Attack kits may be agency or contractor furnished.

### Eastern Area Aerial Supervision Requirements and Guidelines

SITUATION	LEAD PLANE/ASM1 REQUIREMENT/GUIDELINE	AIR ATTACK REQUIREMENT/GUIDELINE
Non-initial attack rated airtanker pilots	Required (must not drop unless lead plane is on scene)	None
Dropping of retardant in congested areas	Required	Must be ordered
Multiple aircraft operating in a congested area, 2 or more	None, unless airtanker operations	Must be ordered
Retardant operations conducted during the period ½ hour before sunrise to ½ hour after sunrise, and ½ hour before sunset to ½ hour after sunset	Airtankers must not be dispatched unless lead plane/ASM1 <u>or</u> air attack can be on scene during drop operations	
Modular Airborne Firefighting System (MAFFS)	Required (must not drop unless lead plane/ASM1 is on scene)	Must be ordered
Canadian CL-215/415	Must not drop unless lead plane/ASM or air attack is on scene	
Multiple airtanker operations	Automatically request the lead plane/ASM1; if not readily available, keep order active if extended attack is anticipated and lead plane/ASM1 can arrive in time to supervise operations	Optional, unless other criteria are met (i.e., mix of different tactical aircraft types and incident complexity dictates need)
Single airtanker operations where a lead plane/ASM1 is co-located with the airtanker	Automatically request the lead plane	Optional, unless other criteria met
Mix of different tactical aircraft types (e.g., airtanker, helicopter, smoke jumper) and the incident complexity dictates the need for air tactical coordination	Optional, unless airtanker operations dictate need	Must be ordered
Numerous resources of a single type	See Multiple Airtanker Operations	Optional, depending upon situation and complexity
Conditions of visibility and/or terrain create a serious hazard to ground or air resources	Mandatory	Must be ordered
National Exclusive Use, Forest Service contract, CL-415	Initial attack carded, none required	

**HELICOPTERS: CALL-WHEN-NEEDED (CWN) (NMG, Ch. 50)**

Before being sent to the incident or project, helicopter(s) and modules must be joined up away from but convenient to the incident or project (at the nearest airport, for example). Prior to conducting operations, the Helicopter Manager or Forest Aviation Officer shall conduct a pre-use inspection verifying that all is in order, brief the pilot on the details of the assignment, and perform a power assurance engine check.

All incident assignments require that a qualified CWN helicopter module be assigned. Refer to NMG, Ch. 50 and the Interagency Helicopter Operations Guide, NFES 1885 (IHOG) for further information.

During active fire season, local dispatch offices must advise EACC of all CWN requests/assignments made by their offices. The Unit Aviation Officer is responsible to notify the Area Aviation Officers when CWN aircraft have been activated.

- Types 1 and 2 Call-When-Needed (CWN) Helicopters
  - Types 1 and 2 CWN helicopters are available under national contract and shall be ordered via established dispatch channels. The definition categories for limited or standard, as well as additional information on CWN helicopters can be found in the NMG, Ch. 50.
- Type 3 CWN Helicopters
  - Ordering:

There are two procurement methods normally used for acquiring Type 3 CWN/on-call helicopters within the Eastern Area.

- Forest Service, CWN contract - Coordination Centers and local dispatch offices refer to section C-25 Authorized Ordering Activities in the CWN contract.
- Office of Aviation Services (OAS) - On call small helicopter contract administration by OAS in Boise, Idaho. Source list includes 17% surcharge.

All Type 3 CWN/on call helicopters will be ordered following standard dispatch procedures. State agencies may have state CWN procurement policies. State Annual Operating Plans (AOP) describes the use of State resources on federal incidents. Helicopters will meet interagency fire helicopter standards for operation on federal incidents. See OAS OPM 06-21 & IHOG.

For incidents or projects on lands administered by National Forests within the Eastern Area, CWN helicopters shall be ordered from either the Forest Service Type 3 helicopter contract or the OAS on call contract.

For incidents or projects on DOI administered lands. Type 3 CWN helicopters shall be ordered from OAS source list.

- Fire Use:

All requests/assignments must be reported to EACC, with subsequent notification outlined above to the agency's aviation manager. All other orders shall be submitted to the Coordination Center.

- Project Use:

For Forest Service projects/orders, use the same procedures as listed above for fire use. For DOI Agencies, all orders for Type 3 helicopters may be placed directly with the vendor using state contracts or agreements. Note that OAS Source list Aircraft Rental Agreement (ARA) aircraft may be utilized by the state provided the state has been assigned or obtains an OAS Billee Code.

#### **HELICOPTERS MODULES (IHOG, NFES 1885)**

Helicopter Type	FAA Standard/Transport Category	FAA Standard Category Temporarily Designated for Limited Use	FAA Standard Category Permanently Designated for Limited Use <u>or</u> FAA Restricted Category
1	Manager plus Four (4) Helicopter Crewmembers	Manager only	Manager only
2	Manager plus Three (3) Helicopter Crewmembers	Manager only	Manager only
3	Manager plus Two (2) Helicopter Crewmembers	Manager only	Manager only
CWN Helicopter and Module must meet up away from Incident(s) or Fire Operations. The minimum required staffing levels must be filled with fully qualified personnel. Trainees may be ordered in addition to the standard module configuration.			

#### **CWN FS CONTRACT vs. OAS CONTRACT HIRING**

Some CWN aircraft vendors hold contracts with both OAS and the FS for each of their aircraft. For federal incidents, the dispatch center will document on the resource order which contract (OAS or FS) the aircraft is hired under, based on the host agency of the incident.

#### **EXCLUSIVE USE CONTRACT HELICOPTERS (NMG, Ch. 50)**

Prioritization for FS Eastern Region exclusive use helicopters will be accomplished by EACC through the Region 9 Fire Operations, Regional Aviation Officer, and the EACC Center Manager.

#### **Type 3 Exclusive use Helicopters**

The Forest Service (FS) Eastern Region has established a Type 3 Exclusive Use Helicopter Program for the 2019 operating period. The program provides regional guidelines for this shared resource between all Eastern Region National Forests. The Exclusive Use Type 3 helicopters are contracted for initial attack, support of wildland fire suppression, and prescribe fire activities. The helicopters are hosted by the National Forests listed below. These units provide administrative management support for the two helicopter contracts.

- Mark Twain National Forest  
Availability period: Feb. 7<sup>th</sup> to May 31<sup>st</sup>.
  - Helibase Location: Rolla - Vichy, Rolla National Airport, Vichy, MO (VIH)

- Monongahela National Forest
  - Availability period; March 1st - May 31st
  - Helibase Location: Greenbrier Valley Airport, Lewisburg, WV (LWB)
  - Utilized as an Rx burn ship for the region
- Shawnee National Forest
 

Availability period: Feb. 27<sup>th</sup> to March 31<sup>st</sup>, will start availability period on the Shawnee

Helibase Location: Williamson County Regional Airport, Marion, IL (MWA)

  - Moves to the Huron-Manistee National Forest April 1<sup>st</sup> to April 30<sup>th</sup>.
- Chippewa/Superior National Forest
 

Availability period: May 1st - Sept 30th.

Helibase Location: Ely Municipal Airport, (ELO)

Other potential fixed wing or Helibases:

- Wexford County Airport, Cadillac, MI (CAD)
- Alpena County Regional Airport, Alpena, MI (APN)
- Gaylord Regional Airport Gaylord, MI (GLR)
- Oscoda-Wurtsmith Airport Oscoda, MI (OSC)
- Rhineland Airport, Oneida County, Rhineland, WI (RHI)
- Tell City Airport, Perry County, Tell City, IN (TEL)

### **Type 1 Exclusive Use Helicopter**

The FS Eastern Region hosts a National Type 1 Exclusive Use Helicopter. Locations are not guaranteed and are subject to national prioritization.

- Alpena, MI: April 10<sup>st</sup> to May 20th  
Helibase Location: Alpena County Regional Airport, Alpena, MI (APN)
- Ely, MN: May 21st to June 15<sup>th</sup>  
Helibase Location: Ely Municipal Airport, Ely, MN (ELO)

### **LARGE TRANSPORT AIRCRAFT (NMG, Ch.50)**

Large transport aircraft are National Resources and will be requested through NICC.

- Scheduling: Large transport aircraft arranged by NICC are requests on a per mission basis. Flight Following ATD/ETE will be relayed by the NICC Aircraft Desk for flight leg.
- Requests for Large Transport: When requesting a large transport aircraft, the following information is required:
  - Number of passengers and/or cargo weight per destination, and combined total weight for the flight.
  - Pick-up point at jetport and time passengers and/or cargo are available to load. NICC requires 48 hours lead time to plan and schedule aircraft for demobilization flights.
  - Pick-up point at the jetport is the Fixed Base Operator (FBO) or gate at the airport terminal

where the aircraft will park.

- Passengers must be weighed and manifested prior to boarding the aircraft.
- Government or contractor support available at each airport, including contact person and telephone number.
- All personnel listed on the manifest and flight crew members should be provided at least one sack lunch.

## UNMANNED AIRCRAFT SYSTEMS

Unmanned Aircraft Systems (UAS) or drone operation by individuals and organizations must be authorized by the FAA or comply with the *Special Rule for Model Aircraft* (Section 336 of P.L. 112-95). Information is available online at <https://www.faa.gov/uas>. Individuals who are determined to have interfered with wildland fire operations may be subject to civil penalties and potentially criminal prosecution.

When UAS are flown for USFS/DOI work or benefit, Federal Aviation Administration (FAA), USFS, and DOI regulations apply.

Units wishing to utilize UAS must have a plan in place for how they are going to collect, process, and disseminate data gathered by a UAS.

Consult with your Unit Aviation Officer or the Regional/State aviation staff to assist in selecting and ordering the aircraft best suited for the mission.

The following minimum standards apply:

- All aircraft (to include UAS) purchase, lease, or acquisition **must** follow agency procurement policy and procedures.
- All aircraft and pilots employed by the USFS or DOI agencies **shall** be approved. Federal use of cooperator agency UAS may be authorized by a Cooperator Aircraft Letter of Approval, valid under the parameters of the FAA's Certificate of Waiver or Authorization (COA).
- UAS flights under USFS operational control **must** adhere to USFS policy and regulations regarding their use. Guidance can be found in FSM 5713.7, the USFS National Aviation Safety and Management Plan and at <http://www.fs.fed.us/science-technology/fire/unmanned-aircraft-systems>.
- UAS flights under DOI operational control **must** adhere to DOI policy and regulations regarding their use. Guidance can be found in 350-353 Departmental Manuals and Operational Memoranda <https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/OPM-2111.pdf>.
- All government agency use or takeoff and landing on federal land of UAS **requires** prior notifications and approval. Some agencies have issued internal direction regarding UAS use. Agency aviation managers must be consulted prior to commencing UAS operations to ensure compliance with individual agency policy that may be more stringent than FAA requirements. A Project Aviation Safety Plan (PASP) is required for all projects, to include UAS missions on fires.
- All government and commercial applications **require** an FAA "Certificate of Waiver or Authorization" (COA) which specifies the time, location, and operating parameters for flying the



UAS. A COA also requires the requesting agency to certify the airworthiness of the proposed aircraft and definition of the standards used to make that determination. For federal fires, the DOI or USFS would be the lead agency for obtaining a COA depending on the jurisdiction of the fire. In the event of a multi-jurisdiction incident the DOI UAS specialist, the USFS UAS advisory group chair, or State or local representative will determine who should obtain the COA.

Incident Management Teams **must** notify the agency administrator prior to use of UAS. A modification to the Delegation of Authority should be considered.

- Personally owned UAS or model aircraft **may not** be used by federal agencies or their employees for interagency fire use.

### Key Points

- An emergency COA can only be issued by the FAA if the proponent already has an existing COA for their aircraft. The request must be accompanied with a justification that no other aircraft exist for the mission and that there is eminent potential for loss of life, property, or critical infrastructure, or is critical for the safety of personnel.
- Cooperators, pilot associations and volunteer aviation groups or individuals may offer to fly unmanned aviation missions (e.g., aerial surveys, fire reconnaissance, and infrared missions) at no charge to the IMTs. Although these offers seem very attractive, we cannot accept these services unless they meet FAA, USFS and/or DOI policy.
- The use of any UAS (including model or remote controlled aircraft) with or without compensation is considered a “commercial” operation per the FAA. The FAA has established guidelines for hobbyists who fly model and remote controlled aircraft via Advisory Circular 91-57. Model aircraft are to be flown only for recreation or hobby purposes.

### AERIAL IGNITION

There are two aerial ignition devices approved for Forest Service and DOI use: the helitorch and the plastic sphere dispenser (PSD). There are specific training and certification requirements for aircraft, pilots, helitorch modules, and PSD operators. Only qualified individuals will be assigned when filling aerial ignition orders for helitorch modules or plastic sphere dispenser operators (PLDO).

Orders for these resources, for fire or project use, may involve several different resource orders. Example: Helicopter ordered on an aircraft resource order, helicopter manager and helitorch module or PSD operator ordered on overhead resource orders, helitorch or PSD machine ordered on an equipment resource order, and plastic spheres, glycol, gasoline, etc. ordered on supply resource orders.

When possible, to alleviate workload, resource tracking problems and confusion, order an exclusive use helicopter and crew, who have all the components in one package (aerial ignition equipment, supplies, and qualified personnel). This can be accomplished on one aircraft resource order that specifies the module and aerial ignition capability needed.

### AIRBORNE THERMAL INFRARED (IR) FIRE MAPPING (NMG, Ch. 50)

All requests for infrared flights will be placed with NICC no later than 1530 Mountain Time, utilizing established ordering channels. Each IR flight will require a separate “A” number in ROSS. Forms for

infrared flights will be created at the National Infrared Operations (NIROPS) website at.

<https://fsapps.nwcg.gov/nirops>

User accounts can be requested by contacting NIROPS directly. It is highly recommended that user accounts be set up ahead of time as there can be a delay in activation of an account request. If the website is unavailable, a faxed Infrared Aircraft Scanner Request Form (EMG, Ch. 80) will be submitted for each request.

A qualified Infrared Interpreter (IRIN) must be confirmed or in place at the time of the infrared flight. IRINs will be ordered using an Overhead "O" request.

#### **INFRARED AIRCRAFT (NMG, Ch. 50)**

#### **UNMANNED AIRCRAFT SYSTEMS (UAS) (NMG, Ch. 50)**

#### **TEMPORARY FLIGHT RESTRICTIONS, FAR 91.137 (TFR) (NMG, Ch. 50)**

Eastern Area units are responsible for submitting their own TFR requests to their respective Air Route Traffic Control Center (ARTCC). The EACC Aircraft Coordinator is available to assist when needed. TFRs may be submitted to the unit's local ARTCC via fax on an agency TFR form or submitted electronically through the NOTAM Entry System (NES).

Check with the appropriate ARTCC to find out how they want the TFR requests submitted. An "A" number will be created by the requesting unit and filed with the TFR NOTAM number issued by the FAA.

TFRs in the USA may be found at <http://tfr.faa.gov/tfr2/list.html>. TFRs are not considered to be in effect until the FAA has issued a Notice to Airmen (NOTAM) regarding the specific TFR.

Typical TFRs are requested in a five (5) mile radius of a given point and 2000 feet above the highest point (MSL). However, TFRs may be requested in any configuration desired depending on the situation, topography, amount of air traffic, etc.

Reference 91.137: Placing a TFR over an incident area does not automatically eliminate non-tactical aircraft for the area. Note the exceptions for law enforcement and news media in the FAR. It is highly recommended that an Airspace Coordinator (ASCO) be ordered in those cases where airspace is complex or numerous aircraft are deployed.

#### **NOTAM D's**

For any project that may affect the local airspace within 5NM of an airport, a NOTAM D will be requested by the local dispatch center this will include airports that show up on the current sectional map. Once issued, notify the Aviation desk at EACC that a NOTAM D has been issued. This also needs to be in the Project Aviation Safety Plan (PASP) as to who will be actually calling the Flight Service Station to request a NOTAM.

To have a **Notice to Airmen (NOTAM)** issued by the NOTAM Flight Service Station (1-877-487-6867), when you call in it will prompt you by asking the state in which the project/controlled burn is located. Have the following information ready when the individual comes on the line.

\*If burning piles within 5NM of an airport or 25 NM of a NAVAID a NOTAM D is required.\*

- Why are you requesting a NOTAM D? (Controlled burn, other projects involving aviation assets)
- Notification 1 - 2 hours in advance, can be requested earlier
- Lat/long of the project or Controlled burn (FAA verbiage)
- Distance from the closest VOR in degrees and miles
- Location of closest airport and radial direction from the airport. (5 miles south east from the airport)
- Surface to what altitude for smoke dispersion.
- Aerial ignition utilized? What altitude will helicopter operations take place?
- Will there be any Detection Aircraft or other aviation assets as part of the operation? (Giving updates to the burn boss)

#### **MILITARY TRAINING ROUTES AND SPECIAL USE AIRSPACE**

Local units are responsible for coordinating with military units for de-confliction of special-use airspace (SUA) and military training routes (MTRs). EACC, upon request from a local unit, may assist with this responsibility.

#### **AIRSPACE CONFLICTS (NMG, Ch. 50)**

All airspace conflicts including accidents (mid-air collision), incidents (near mid-air collision), hazards (intrusions into airspace restricted under Title 14 CFR part 91.137, Temporary Flight Restrictions), and other occurrences involving airspace conflicts shall be reported immediately by the individual involved with or observing the conflict to the local unit dispatch office or aviation manager.

The local dispatch office or aviation manager shall, upon notification of a conflict, immediately gather all pertinent information and documentation (TFR requests, dispatch logs, documentation of contacts with the military). They shall then report the occurrence and furnish the documentation of contacts with the military. They shall then report the occurrence and furnish the documentation to the appropriate aviation officer at the state, regional, or area level. A courtesy call shall also be made to EACC Aircraft Desk. A SAFECOM shall be initiated for the record.

If the conflict involves a serious aviation accident involving injury or loss of life or property, EACC shall immediately notify NICC.

#### **FAA TEMPORARY CONTROL TOWER OPERATIONS (NMG, Ch. 50)**

Temporary control tower assistance is available through the FAA. Units may request this service on an aircraft resource order through EACC. See Interagency Airspace Coordination Guide (IACG) for guidelines, as well as personnel and equipment requirements.

**DEDICATED RADIO FREQUENCIES (NMG, Ch. 50)**

The National Interagency Incident Communications Division (NIICD) issues dedicated FM frequencies in conjunction with communication equipment assigned to incidents. NIICD will order additional FM frequencies from DOI and FS, Washington Offices, as conditions warrant. To insure proper frequency coordination, the ordering office must include the Latitude and Longitude of the incident on the resource order.

**Air-to-Air, Air-to-Ground Frequencies:**

Requests for the use of dedicated Air-to-Air and Air-to-Ground frequencies will be made through established ordering channels from the incident host GACC, directly to the National Interagency Incident Communications Division, NIICD. The NIICD was formerly referred to as NIRSC. GACCs will place a phone call to the Communications Duty Officer (CDO) to notify them of request. The CDO coordinates all National Cache FS and DOI frequencies as well as any additional frequencies released by other agencies for wildland fire support. Frequencies are ordered on an Aircraft "A" request.

Initial attack AM air-to-air frequencies will be assigned by the NIICD Communications Duty Officer (CDO) after annual coordination with the FAA. The primary AM assignment is published at the beginning of the fire season. The secondary assignment of the zone, if pre-engineered, will reside under the control of the GACC. The secondary assignment can be quickly authorized for use by the zone through a request to the GACC. The tertiary assignment, if applicable, will remain with the CDO and its use authorized as conditions warrant.

VHF- AM assigned frequencies will be facilitated and coordinated by the NIICD CDO in cooperation with the agency frequency managers with the intent to create permanent assignments. Both AM and FM assignments will be used on an interagency basis and master records of the assignments are maintained by the NIICD CDO. Updated frequency information for initial attack air-to-air and air-to-ground is coordinated annually with the GACCs.

Incident requests for the use of dedicated air-to-air and air-to-ground frequencies will be made through established ordering channels to NIICD and are filled by the NIICD CDO. The CDO coordinates all national cache FS and DOI frequencies, as well as any additional frequencies released by other agencies for

When existing aircraft radio frequencies become overloaded during an emergency, additional VHF AM frequencies in the 118 MHz to 136 MHz band can be obtained on a temporary basis.

**Procedures to obtain additional frequencies:**

- Dispatchers shall request additional frequencies through normal ordering channels to EACC, using an "A" number in ROSS for each separate frequency requested. The following information must be included:
  - Number of frequencies required.
  - Use of the frequencies (AM for air-to-air or FM for air-to-ground).
  - Latitude and longitude of incident or air operations center point.
  - Whether the aircraft are equipped to operate on narrow band or wide band.

- NIRSC will assign, as required, FAA frequencies. This process may take from a couple of hours or longer depending on what else is going on throughout the country.
- When no longer needed, units shall release frequencies back to NIRSC.

### **AIRCRAFT ACCIDENT/INCIDENT/HAZARD/MAINTENANCE DEFICIENCY REPORTING**

Any deviation from standard aviation policy or procedures, either on the ground or in the air, shall be reported. Regardless of individual agency reporting time frames, all accidents, incidents with potential to have caused an accident, as well as all airspace conflicts, shall be reported immediately.

The unit with operational control of the aircraft at the time of the occurrence is responsible for ensuring submission of the SAFECOM by the observing or involved individual(s) (i.e., fixed wing manager). The SAFECOM will be submitted through the operational control agency's reporting system:

<https://www.safecom.gov/>.

For aircraft enroute to an incident which experiences an accident or incident/hazard/maintenance deficiency prior to arrival, the scheduling/sending dispatch office shall be the unit with reporting responsibility.

Aside from accident situations where reporting to another agency is required, an agency submitting a report which involves another agency's aircraft shall forward a courtesy copy to the appropriate aviation officer of that agency.

### **APPROVED PILOTS AND AIRCRAFT**

For DOI approved pilots and aircraft, see the Office of Aviation Services website:

<https://www.doi.gov/aviation>.

### **ADDITIONAL LINKS CAN ALSO BE FOUND ON THE EACC WEBSITE UNDER AVIATION**

Aerial Ignition Guide: <https://www.nwcg.gov/publications/interagency-aerial-ignition-guide>.

Aerial Supervision Guide: <https://www.nwcg.gov/publications/interagency-aerial-supervision-guide>.